

## ABSTRACT

A system and method for encoding page size information has been described herein. In one embodiment, the method includes determining whether a virtual address is  
5 stored in a translation lookaside buffer (TLB), the TLB including a plurality of entries, wherein the entries include a minimum virtual page number bit string and a variable bit string. In one embodiment the determining includes comparing a first bit string of the virtual address to the minimum virtual page number bit string of each of the entries. In one embodiment the method also includes determining whether the first bit string  
10 matches the minimum virtual page number bit string of one of the entries. In one embodiment, if the first bit string matches the minimum virtual page number bit string of one of the entries, the method includes decoding a page size stored in the variable portion of the matching entry and a 1-bit field associated with the matching entry, wherein the decoding determines a set of bits of the variable bit string. In one embodiment the  
15 method also includes comparing the set of bits of the variable portion to a second bit string of the virtual address.